

REMARKS

Claims 1, 8, 19, 28 and 39 have been amended and claims 7, 9, 22, 23 and 36 have been cancelled without prejudice or disclaimer. Support for the instant amendments is provided throughout the as-filed application. Applicant believes no new matter has been added. Accordingly, claims 1-3, 5, 6, 8, 10-20, 24-35 and 37-48 are pending, of which claims 6, 13, 14, 26, 31, 33, 41-43 and 48 are withdrawn. Reconsideration and allowance of the present application based on the following remarks are respectfully requested.

Applicant submits that claims 1, 19 and 28 are generic of at least one or more claims in this application. Therefore, upon allowance of claims 1, 19 and 28, Applicant respectfully requests rejoinder of claims 6, 13, 14, 26, 31, 33, 41-43 and 48, which claims include all the limitations of an allowable claim. See MPEP § 821.04.

REJECTION UNDER 35 U.S.C. §102

Claims 1, 2, 7, 8, 9, 12, 15-20, 22, 23, 25, 27, 28, 30, 32 and 34-36 were rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent Application Publication No. 2005/034815 A1 to Van Santen, *et al.* (hereinafter "Van Santen").

Applicant submits that the cited portions of Van Santen do not disclose or teach a lithographic apparatus comprising, *inter alia*, a liquid supply system configured to supply a liquid to substantially only a localized area of the substrate, of the substrate table, or of both, to at least partly fill a space between the projection system and the substrate, the substrate table, or both, the localized area being less than the area of a surface of the whole substrate, wherein the supplied liquid is confined to the localized area, while in normal use during projection of the patterned beam, in a controlled manner except for uncontrolled escaping liquid wherein at least a portion of the substrate is not in contact with the escaping liquid, and wherein the substrate table comprises a barrier configured to collect liquid escaping from the localized area, the barrier surrounding and spaced apart from the substrate and comprising a projection which projects out above an upper surface of the substrate when the substrate is held on the substrate table and a groove

recessed into an upper surface of the substrate table to collect escaping liquid, as recited in claim 1.

Similarly, Applicant submits that the cited portions of Van Santen do not disclose or teach a device manufacturing method comprising, *inter alia*, providing a liquid to substantially only a localized area of a substrate, of a substrate table, or of both, to at least partly fill a space between a projection system and the substrate, the substrate table, or both, the localized area being less than the area of a surface of the whole substrate; and collecting uncontrolled liquid escaping from the localized area with a barrier, the barrier surrounding and laterally spaced apart from the substrate and comprising a projection which projects out above an upper surface of the substrate when the substrate is held by the substrate table and a groove recessed into an upper surface of the substrate table to collect escaping liquid, wherein the supplied liquid is confined to the localized area, while in normal use during projection of the patterned beam, in a controlled manner except for uncontrolled escaping liquid, and wherein at least a portion of the substrate is not in contact with the escaping liquid, as recited in claim 19.

In addition, Applicant submits that the cited portions of Van Santen do not disclose or teach a lithographic apparatus comprising, *inter alia*, a liquid supply system configured to supply a liquid to substantially only a localized area of the substrate, of the substrate table, or of both, to at least partly fill a space between the projection system and the substrate, the substrate table, or both, the localized area being less than the area of a surface of the whole substrate, wherein the majority of supplied liquid is confined to the localized area, while in normal use during projection of the patterned beam, in a controlled manner except for uncontrolled escaping liquid, wherein at least a portion of the substrate is not in contact with the escaping liquid, and wherein the substrate table comprises a barrier configured to collect liquid escaping from the localized area, the barrier surrounding and spaced apart from the substrate and positioned radially outwardly of a drainage ditch, surrounding an outer peripheral edge of the substrate, to collect escaping liquid, as recited in claim 28.

For example, paragraph [0017] of Van Santen discloses that "... in use, the immersion liquid is allowed to leak out of the space between the bottom of the barrier

member and the substrate and is thereby not constrained in the space." (emphasis added). Further, paragraph [0054] of Van Santen also discloses "[n]o provision is made, for example, during scanning, to seal the space to avoid loss of immersion liquid." (emphasis added).

As such, the cited portions of Van Santen do not disclose that supplied liquid is confined to the recited localized area, while in normal use during projection of the patterned beam, in a controlled manner except for uncontrolled escaping liquid, wherein at least a portion of the substrate is not in contact with the escaping liquid. Instead, paragraph [0053] of Van Santen discloses that, during scanning, all or most immersion fluid 5 flows out from under the barrier member 10 in a controlled manner to cover the entire substrate W with immersion fluid 5. *See also* Figure 4 of Van Santen.

Therefore, for at least the above reasons, Applicant submits that the cited portions of Van Santen fail to teach or disclose each and every feature recited by claims 1, 19 and 28. Claims 2, 7, 8, 9, 12, 15-18, 20, 22, 23, 25, 27, 30, 32 and 34-36 depend from claims 1, 19 and 28 and are patentable for at least the same reasons provided above related to claims 1, 19 and 28, and for the additional features recited therein. As a result, Applicant respectfully submits that the rejection under 35 U.S.C. §102(e) of claims 1, 2, 7, 8, 9, 12, 15-20, 22, 23, 25, 27, 28, 30, 32 and 34-36 over Van Santen should be withdrawn and the claims be allowed.

REJECTIONS UNDER 35 U.S.C. §103

Claims 1, 2, 7, 12, 16, 17, 19, 20, 22, 25, 27, 28, 30, 32, 34 and 35 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over International (PCT) Patent Application Publication No. WO99/49504 by Fukami, *et al.* (hereinafter "Fukami") in view of Japanese Patent Application Publication No. JP 10-303114 (hereinafter "JP '114").¹ Applicant respectfully traverses this rejection.

¹ The Office Action provided a machine translation of JP '114. Applicant, however, does not concede that this is a true and accurate translation of JP '114 and submits that the Office must provide a proper translation of JP '114 to make the record clear. See MPEP § 706.02 II ("If the document is in a language other than English and the examiner seeks to rely on that document, a translation must be obtained so that the record is clear as to the precise facts the examiner is relying upon in support of the rejection.").

Claim 1 has been amended to include the subject matter of claims 7 and 9. Claim 9 has not been rejected in view of JP '114 and Fukami. Accordingly, Applicant submits that claim 1 is patentable over JP '114 and Fukami.

Claim 19 has been amended to include the subject matter of claims 22 and 23. Claim 23 has not been rejected in view of JP '114 and Fukami. Accordingly, Applicant submits that claim 19 is patentable over JP '114 and Fukami.

Claim 28 has been amended to include the subject matter of claim 36. Claim 36 has not been rejected in view of JP '114 and Fukami. Accordingly, Applicant submits that claim 28 is patentable over JP '114 and Fukami.

Therefore, for at least the above reasons, Applicant submits that the cited portions of Fukami, JP '114, or a combination thereof, fail to teach, disclose, or otherwise render obvious each and every feature recited by claims 1, 19 and 28. Claims 2, 7, 12, 16, 17, 20, 22, 25, 27, 30, 32, 34 and 35 depend from claims 1, 19 and 28 and are patentable for at least the same reasons provided above related to claims 1, 19 and 28, and for the additional features recited therein. As a result, Applicant respectfully submits that the rejection under 35 U.S.C. §103(a) of claims 1, 2, 7, 12, 16, 17, 19, 20, 22, 25, 27, 28, 30, 32, 34 and 35 over Fukami in view of JP '114 should be withdrawn and the claims be allowed.

Claims 3, 29 and 47 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Fukami in view of JP '114, as applied to claims 1, 19 and 28 above, and further in view of U.S. Patent Application Publication No. 2006/0023181 A1 to Novak (hereinafter "Novak"). Applicant respectfully traverses this rejection for at least the following reasons.

As discussed above, the cited portions of Fukami, JP '114, or a combination thereof do not teach or render obvious each and every feature of claims 1, 19 and 28.

Further, even assuming *arguendo* that the combination of Fukami, JP '114 and Novak might be proper (which Applicant does not concede), Applicant submit that the cited portions of Novak do not overcome the deficiencies of Fukami and JP '114 set forth above. For example, the Office Action merely relies upon Novak to allegedly teach a hydrophilic (liquidphilic) coating.

Therefore, for at least the above reasons, Applicant submits that the cited portions of Fukami, JP '114, Novak or a combination thereof, fail to teach, disclose, or otherwise render obvious each and every feature recited by claims 1, 19 and 28. Claims 3, 29 and 47 depend from claims 1, 19 and 28 and are patentable for at least the same reasons provided above related to claims 1, 19 and 28, and for the additional features recited therein. As a result, Applicant respectfully submits that the rejection under 35 U.S.C. §103(a) of claims 3, 29 and 47 over Fukami, JP '114 and Novak should be withdrawn and the claims be allowed.

CONCLUSION

Having addressed each of the foregoing rejections, it is respectfully submitted that a full and complete response has been made to the outstanding Office Action and, as such, the application is in condition for allowance. Notice to that effect is respectfully requested.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

If an extension of time is necessary to prevent abandonment of this application, then such an extension of time is hereby petitioned for under 37 C.F.R. §1.136(a). Any fees required (including fees for net addition of claims) are hereby authorized to be charged to **Deposit Account No. 033975** (Ref. No. **081468-0309196**).

Date: October 7, 2010

Respectfully submitted,

By:

Jean-Paul G. Hoffman
Registration No. 42663

Customer No.: 00909

Direct: (703) 770-7794
Main: (703) 770-7900
Fax: (703) 770-7901

Pillsbury Winthrop Shaw Pittman LLP
P.O. Box 10500
McLean, Virginia 22102